

Low Energy Nuclear Recoil Events in Liquid Xenon

Low energy nuclear recoil events are of great interest in the search for Dark Matter, specifically for probing lower mass WIMP models. They also give us a better understanding when developing advanced detectors for reactor antineutrino monitoring. LLNL and UC Davis are collaborating to study ~ 1 keV Nuclear Recoils in a liquid xenon using a dual phase time projection chamber (XeNeu). In this talk I will present preliminary results of 2.4 MeV neutron recoils from a DD generator and compare them to LUX ionization results. Then briefly discuss our charge yield measurements for sub-KeV recoils taken at TUNL's 570 KeV neutron source.

Session

Works in Progress (15+5 min)

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